#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

### WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-002131 Address: 333 Burma Road **Date Inspected:** 01-May-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Li Yan Hua **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes N/A **Delayed / Cancelled:** No

**Bridge No:** 34-0006 **Component:** OBG

### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Tim McClendon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and/or discovered the following.

The Caltrans QA Inspector observed welding utilizing the dual process WPS-B-T-2342-U1 (U-rib)-3 welding procedure specification for closed rib welding of the Production Monitoring Test (PMT) #1 for Production Panel DP345-001 on closed U-rib Partial Joint Penetration (PJP) welds in Bay #1. ZPMC welding personnel performed Gantry Machine, Gas Metal Arc Welding (GMAW) for the root pass and immediately performed Gantry Machine, Submerged Arc Welding (SAW) for the cover/final pass on PMT #1, using gantry machine #1. Upon completion of the SAW pass on U-rib PJP welds on PMT #1 Visual Testing (VT) was performed on weld #1 through #6 by ZPMC personnel and was accepted then VT was verified by the Caltrans QA inspector. Ultrasonic Testing (UT) was then performed by ZPMC inspector and PMT #1 was determined to be acceptable. Macro etch samples were selected by the Caltrans QA inspector on PMT #1. After welding was completed on PMT #1, ZPMC personnel performed welding utilizing the GMAW process on Production Panel DP345-001

After welding was completed on PMT #1, ZPMC personnel performed welding utilizing the GMAW process on Production Panel DP354-001. The welding variables of the GMAW pass on production panel closed U-ribs PJP welds were observed and recorded for each welder. The minimum and maximum weld parameters are as follows, amperage 363 to 375, and voltage 29.8 to 30.6 with a travel speed of 532 mm/min.

# WELDING INSPECTION REPORT

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## **Summary of Conversations:**

No relevant conversations spoken on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Pat Lowry, (858) 344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	McClendon, Timothy	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer